Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte TETSUYA INABA

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Appeal No. 2004-2040
Application No. 09/772,985

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ON BRIEF

_____

Before PAK, DELMENDO, and JEFFREY T. SMITH, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2003) from the examiner's final rejection of claims 27 through 30 (final Office action mailed May 20, 2003, paper 18), which are all of the claims pending in the above-identified application.

The subject matter on appeal relates to a method of producing an electronic device (e.g., a multi-chip module). (Specification, page 1, line 5 to page 8, line 8.) Further

details of this appealed subject matter are recited in representative claim 27, the only independent claim on appeal, reproduced below:

> 27. A method of producing an electronic device, comprising the steps of:
>
> providing a flexible board having a first surface and an opposite second surface with connection lands provided on the first surface;
>
> mounting at least two chips on the first surface of the flexible board and at least two chips on the second surface of the flexible board;
>
> dispensing an adhesive made of an insulating material on one of the at least two chips mounted on the first surface of the flexible board to cover the one chip;
>
> folding the flexible board into a first sidewise U-shaped configuration so that the one chip covered by the adhesive faces the other chip mounted on the first surface of the flexible board with the flexible board being sufficiently folded and an amount of the dispensed adhesive covering the one chip mounted on the first surface of the flexible board being sufficient so that the other chip mounted on the first surface of the flexible board is immersed in the adhesive resulting in completely covering both chips mounted on the first surface of the flexible board with the dispensed adhesive contacting facially-opposing first surface mounting areas of the first surface of the flexible board surrounding the respective chips mounted on the first surface of the flexible board;
>
> dispensing the adhesive one [sic] of the at least two chips mounted on the second surface of the flexible board to cover the one chip;
>
> folding the flexible board into a second sidewise U-shaped configuration to form a S-shaped flexible board so that the one chip mounted on the second surface of the flexible board and covered by the adhesive faces the other chip mounted on the second surface of the flexible board with the flexible board

being sufficiently folded and an amount of the dispensed adhesive covering the one chip mounted on the second surface of the flexible board being sufficient so that the other chip mounted on the second surface of the flexible board is immersed in the adhesive resulting in completely covering both chips mounted on the second surface of the flexible board with the dispensed adhesive contacting facially-opposing second surface mounting areas of the second surface of the flexible board surrounding the respective chips mounted on the second surface of the flexible board;

providing a base board having base board connection lands formed on one surface thereof; and

connecting the connection lands of the flexible board to the base board connection lands.

The examiner relies on the following prior art reference as evidence of unpatentability:

Paurus et al. (Paurus) 5,448,511 Sep. 5, 1995

Claims 27 through 30 on appeal stand rejected under 35 U.S.C. § 102(b) as anticipated by Paurus. (Examiner's answer mailed Nov. 18, 2003, paper 23, pages 3-5.)

We reverse.

"'To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.'" MEHL/Biophile Int'l Corp. v. Milgraum, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999)(quoting In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997)).

As method steps, appealed claim 27 recites in part:

> dispensing an adhesive made of an insulating material on one of the at least two chips mounted on the first surface of the flexible board to cover the one chip;
>
> folding the flexible board into a first sidewise U-shaped configuration so that the one chip covered by the adhesive faces the other chip mounted on the first surface of the flexible board with the flexible board being sufficiently folded and an amount of the dispensed adhesive covering the one chip mounted on the first surface of the flexible board being sufficient so that the other chip mounted on the first surface of the flexible board is immersed in the adhesive resulting in completely covering both chips mounted on the first surface of the flexible board with the dispensed adhesive contacting facially-opposing first surface mounting areas of the first surface of the flexible board surrounding the respective chips mounted on the first surface of the flexible board...[Emphasis added.]

The appealed claim further recites:

> dispensing the adhesive one [sic] of the at least two chips mounted on the second surface of the flexible board to cover the one chip;
>
> folding the flexible board into a second sidewise U-shaped configuration to form a S-shaped flexible board so that the one chip mounted on the second surface of the flexible board and covered by the adhesive faces the other chip mounted on the second surface of the flexible board with the flexible board being sufficiently folded and an amount of the dispensed adhesive covering the one chip mounted on the second surface of the flexible board being sufficient so that the other chip mounted on the second surface of the flexible board is immersed in the adhesive resulting in completely covering both chips mounted on the second surface of the flexible board with the dispensed adhesive contacting facially-opposing second surface mounting areas of the second

> surface of the flexible board surrounding the respective chips mounted on the second surface of the flexible board...[Emphasis added.]

Thus, for each of the recited first and second surfaces of the flexible board, a specified adhesive dispensing step is followed by a specified folding step.

According to the examiner (answer at 3-4), one skilled in the art would have "[d]ispensed an adhesive made of an insulating material to cover the chips in an encapsulating arrangement" and "[f]olded the flexible board in first and second U shaped configurations to form a S shaped board so that the one chip covered by the adhesive faces the other chip mounted on the second surface of the flexible board..." To support this contention, the examiner relies on the disclosures in Paurus at: column 3, lines 35-37; column 4, lines 24-28 and 39; column 5, lines 28-31; and column 6, lines 28-31. (Answer at 4.)

We cannot agree with the examiner's analysis. The relied upon portions of Paurus do not describe the dispensing of an adhesive followed by the folding of the flexible board for each of the first and second surfaces of the flexible board, as required by appealed claim 27. Instead, Paurus teaches

stabilizing the folded stack with an adhesive. (Column 7, lines 14-17; Figure 10.)

It is clear, therefore, that the examiner has not adequately established that Paurus describes each and every limitation of the invention recited in appealed claim 27. Accordingly, we are constrained to reverse the examiner's rejection on this ground.[1]

For these reasons, we reverse the examiner's rejection under 35 U.S.C. § 102(b) of appealed claims 27 through 30 as anticipated by Paurus.

[1] Upon receipt of this application, the appellant and the examiner should analyze whether any of the appealed claims should be rejected under 35 U.S.C. § 103(a) as unpatentable over Paurus.

The decision of the examiner is reversed.

REVERSED

Chung K. Pak	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
Romulo H. Delmendo	)	
Administrative Patent Judge	)	APPEALS AND
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	)	INTERFERENCES
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Jeffrey T. Smith	)	
Administrative Patent Judge	)	

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